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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,368	10/21/2005	Masakazu Muranaka	2271/74559	2646

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COOPER & DUNHAM, LLP  
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EXAMINER
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VO, ANH T N

ART UNIT	PAPER NUMBER
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2861

MAIL DATE	DELIVERY MODE
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07/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/537,368

Applicant(s)

MURANAKA ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-14 and 18-43 is/are rejected.
- 7) ☒ Claim(s) 6-8 AND 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :06/02/05;  
10/12/06 AND 03/12/07.

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## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The references cited on PTO 1449 have been considered.

### ***Drawings Object to***

The drawing is objected to in that Figure 1 should be labeled as --Prior Art--. Correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-29 and 42-43 are rejected under 35 USC 102 (b) as being anticipated by Childer et al. (US Pat. 5,956,057).

Childer et al. disclose in Figures 1-3, 4c and 5 an ink container for an ink jet printing system comprising:

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22. an ink container (12) attachable replaceably to an ink container loading part (14) of an image-forming apparatus (10) comprising a positioning part (62) defining a positional relationship between the ink container (12) and an ink introduction part (28) provided to the ink container loading part (14) (Figures 2-3);

23. wherein said positioning part (62) is a rib engageable with a groove (66) provided to the ink container loading part (14) and/or wherein said positioning part is a groove engageable with a rib provided to the ink container loading part (Figures 3, 4c and 5);

25. wherein said positioning part (14) is provided at a position corresponding to a color of ink contained in the ink container (Figures 3 and 5);

26. wherein a positional relationship between said positioning part (62) and an ink supply opening part (20) for supplying ink to the image-forming apparatus (10) is equal to that of another ink container (12), the other ink container containing ink of a color equal to that of ink contained in the ink container, and having a shape different from that of the ink container (Figures 3 and 5);

27. wherein a positional relationship between said positioning part (62) and an ink supply opening part (20) for supplying ink to the image-forming apparatus (10) remains constant irrespective of a shape of the ink container (Figures 2-3);

28. an ink container loading part (14) to which an ink container (12) is replaceably attachable, wherein said ink container loading part (14) comprises a positioning part (66) for loading ink containers (12) that contain ink of a single color and have different shapes (Figures 2-3 and 5);

29. wherein an ink container (12) is attachable to said ink container loading part (14) (Figure 3);

42. an ink container (12) attachable replaceably to an ink container loading part (14) of an image-forming apparatus (10) comprising positioning means (62) defining a positional relationship between the ink container (12) and ink introduction means (28) provided to the ink container loading part (14) (Figure 3); and

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43. an image-forming apparatus (10) comprising an ink container loading part (14) to which an ink container (12) is replaceably attachable, wherein said ink container loading part (14) comprises positioning means (66) for loading ink containers (12) that contain ink of a single color and have different shapes (Figures 2-3 and 5).

Claims 30-37 are rejected under 35 USC 102 (b) as being anticipated by Hmelar et al. (US Pat. 6,364,472).

Hmelar et al. disclose in Figures 8-10 an ink supply container for an ink jet printing system comprising:

30. an ink container (212) comprising a dividable housing (214, 216) that houses an ink bag (218) containing ink, wherein at least one screw member is employable as a fastening member to keep said dividable housing in an assembled state (Figure 8, column 12, lines 6-10);

31. wherein a plurality of screw members (not shown) are employable as fastening members to keep said dividable housing (214, 216) in the assembled state; and the screw members are tightened in a single direction (Figure 8, column 12, lines 6-10);

32. wherein at least one of the screw members is concealed from outside view (Figure 8);

33. wherein said dividable housing (214, 216) is dividable into a plurality of parts (Figure 8);

a boss part (unmarked holes that are close by the elements 222' and 232) into which the screw member is screwed is formed on one of the parts of said dividable housing (214, 216), and a recess into which a head of the screw member is fitted is formed in another one of the parts of said dividable housing (Figure 8);

34. wherein said boss part (unmarked holes that are close by the elements 222' and 232) is provided at a position prevented from interfering with the ink bag (218) (Figure 8);

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35. wherein the fastening member (226, 232) is provided near a handle part (unmarked ribs that are close by the elements 226 and 232) provided to said dividable housing (214, 216);

36. wherein the screw member is concealed from outside view (Figure 8).

37. an ink container loading part (240) to which an ink container (212) is replaceably attachable (Figure 10);

Claim 39 is rejected under 35 USC 102 (b) as being anticipated by Yamazaki et al. (JP Pat. 59227458).

Yamazaki et al. disclose in Figures 1-4 an ink cassette for an ink jet recording apparatus comprising:

a first housing (10) including a holding means (12) holding the holding member (50) of said ink containing part (40, 50) (Figure 1);

a second housing (20) whose outline is analogous to an outline of said first housing (10) (Figure 1); and

a third housing (80) fitted to a side of an assembly of said first and second housings (10, 20) from which side ink (ink is supplied from the element 50) is supplied, wherein said first, second, and third housings (10, 20, 80) are assemblable and disassemblable (Figures 3 and 4).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9, 11-14, 18, 20, 38 and 40 are rejected under 35 USC 103 (a) as being unpatentable over Yamazaki et al. (JP Pat. 59227458) in view of applicant's admitted prior art (as shown in Figure 1) and further in view of Nakamura et al. (US Pat. 6,220,702).

Yamazaki et al. disclose in Figures 1-4 an ink cassette for an ink jet recording apparatus comprising:

- an ink containing part (40, 50) including a holding member;
- a first housing (10) including a holding part (12) holding the holding member (50) of said ink containing part (40, 50) (Figure 1);
- a second housing (20) whose outline is analogous to an outline of said first housing (10) (Figure 1);
- a third housing (80) fitted to a side of an assembly of said first and second housings (10, 20) from which side ink (ink is supplied from the element 50) is supplied, wherein said first, second, and third housings (10, 20, 80) are assemblable and disassemblable (Figures 3 and 4);
- wherein said ink containing part (40, 50) is an ink bag (40) including a bag-like part (Figure 1);
- an engagement mechanism (21, 11) that engages said first and second housings (10, 20) (Figure 1);
- wherein said engagement mechanism ((21, 11) comprises an engagement claw (21) provided the second housing (20) and an engagement part (11) provided to the first housing, the engagement claw (21) and the engagement part engaging (11) each other (Figure 1);
- wherein at least one of said first, second, and third housings a cap member (60) provided to an end of the ink supply opening part (50) of said ink containing part (40, 50).



However, Yamazaki et al. do not disclose holding member that includes an ink supply opening part and a sealed ink filling opening part, wherein the ink bag engages and is held by an engagement and holding part provided to the housing of the ink cartridge; the ink bag is formed of a member including an aluminum laminate film; and a label applied to each of said first and second housings so as to reinforce engagement of the housings.

The applicant's admitted prior art as shown in Figure 1 an ink cartridge comprising a holding member (504) including an ink supply opening part (508) and a sealed ink filling opening part (505), wherein the ink bag (501) engages and is held by an engagement and holding part (502a) provided to the housing (502) of the ink cartridge (502, 503, 504).

Nakamura et al. disclose in Figures 8a, 10 and 14 an ink bag for an ink jet type recording apparatus comprising:

- wherein the ink bag (60) is formed of a member including an aluminum laminate film.
- a label (31) applied to each of said first and second housings (20, 21) so as to reinforce engagement of the housings.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of the applicant's admitted prior art (as shown in Figure 1) and Nakamura et al. in the Yamazaki et al. ink cassette for the purpose of providing an adhesive tape that is wound entirely around an ink cartridge housing to reinforce engagement of the housings and aluminum film that prevents gas get into the ink bag.

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Claims 10 and 19 are rejected under 35 USC 103 (a) as being unpatentable over Yamazaki et al. (JP Pat. 59227458) in view of applicant's admitted prior art (as shown in Figure 1) as applied in claims 1 and 12 and further in view of Hmelar et al. (US Pat. 6,364,472).

Yamazaki et al. in view of applicant's admitted prior art (as shown in Figure 1) discloses the basic features of the claimed invention as stated above but do not disclose a screw member that fixes said first and second housings together

Hmelar et al. disclose in Figure 8 an ink container for an ink jet printing system comprising a screw member (not shown) that fixes said first and second housings (214, 216) together (column 12, lines 6-10).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of the applicant's admitted prior art (as shown in Figure 1) and Hmelar et al. in the Yamazaki et al. ink cassette for the purpose of providing screws to fasten an in cartridge housing with low cost.

Claims 21 and 41 are rejected under 35 USC 103 (a) as being unpatentable over Yamazaki et al. (JP Pat. 59227458) in view of applicant's admitted prior art (as shown in Figure 1) as applied in claims 1 and 38 and further in view of Childer et al. (US Pat. 5,956,057).

Yamazaki et al. in view of applicant's admitted prior art (as shown in Figure 1) discloses the basic features of the claimed invention as stated above but do not disclose an ink cartridge containing an ink containing part is loadable from a front side of an ink-jet recording apparatus.

Childer et al. disclose in Figure 2 an ink container for an ink jet printing system comprising an ink cartridge (12) containing an ink containing part is loadable from a front side of an ink-jet recording apparatus (10)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of the applicant's admitted prior art (as shown in Figure 1) and Childer et al. in the Yamazaki et al. ink jet recording apparatus for the purpose of easily replacing an ink cartridge with a new one when the cartridge is empty.

#### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These prior art references (US Pat. 4,819,012; US Pat. 5,839,368; US Pat. 6,609,789) cited in the PTO 892 form show an ink cartridge for use in an ink jet printer which is deemed to be relevant to the present invention. These references should be reviewed.

#### ***Allowable Subject Matter***

Claims 6-8 and 15-17 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because the prior art references of record fails to teach or suggest an ink cartridge comprising an engagement mechanism that engages a third housing with first and second housings in the combination as claimed.

#### ***CONCLUSION***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262.

The examiner can normally be reached on Monday to Friday from 9:00 A.M. to 5:30 P.M..

The fax number of this Group 2861 is (571) 273-8300.

A handwritten signature in black ink, appearing to read 'Anh T.N. Vo', with a long horizontal flourish extending to the right.

**ANH T.N. VO**  
**PRIMARY EXAMINER**

July 19, 2007